

401510" 0226560

FIG. 1A-1
FIG. 1A-2

FIG. 1A

GAATTCCTCCCAACAGAGCCAAGCTCTCCATCTAGTGGACAGGGAAGCTAGCAGCAAACC  
39 (UPPER: SEQ ID NO.: 1)  
19 (LOWER: SEQ ID NO.: 4)

TTCCCTTCACTACAAACTTCATTGCTTGGCCAAAAGAGAGTTAATTCATGTAGACAT  
119  
39

CTATGTAGGCAATTAAAAACCTATTGATGTATATAAACAGTTTGCATTTCATGGAGGGCAAC  
179  
59

TAAATACATTCTAGGACTTTATAAAAGATCACTTTTTATTATGCACAGGGTGAACAAG  
239  
79

ATGGATTATCAAGTCAAGTCCAATCTATGACATCAATTATTATACATCGGAGCCCTGC  
299  
99  
M D Y Q V S S P I Y D I N Y Y T S E P C

1/20

#4

FIG. 1A-1

20150720 00000000

CAAAAAATCAATGTGAAGCAAAATCGCAGCCCGCCTCCTGCCTCCGCTCTACTCAGTGGTG 359  
Q K I N V K Q I A A R L L P P L Y S L V 119

TTCAATCTTTGGTTTGTGGGCAACATGCTGGTCATCCTCATCCTGATAAACTGCAAAAGG 419  
F I F G F V G N M L V I L I L I N C K R 139

CTGAAGAGCATGACTGACATCTACCTGTCTCAACCTGGCCATCTCTGACCTGTTTTTCCTT 479  
L K S M T D I Y L L N L A I S D L F F L 159

CTTACTGTCCCCCTTCTGGGCTCACTATGCTGCCGCCAGTGGGACTTTGGAAATACAATG 539  
L T V P F W A H Y A A A Q W D F G N T M 179

TGTCAACTCTTGACAGGGCTCTATTTTATAGGCTTCTCTCGGAATCTTCTTCATCATC 599  
C Q L L T G L Y F I G F F S G I F F I I 199

CTCCTGACAATCGATAGGTACCTGGCTGCTGCCATGCTGTGTTGCTTTAAAGCCAGG 659  
L L T I D R Y L A V V H A V F A L K A R 219

ACGGTCACCTTTGGGGTGGTGACAAGTGTGATCACTTGGGTGGTGGCTGTGTTGCGTCT 719  
T V T F G V V T S V I T W V V A V F A S 239

CTCCAGGAATCATCTTTACCAGATCTCAAAAAGAGGTCTTCATTACACCTGCAGCTCT 779  
L P G I I F T R S Q K E G L H Y T C S S 259

CATTTTCCATACA  
H F P Y

FIG. 1A-2

FIG. 1B-1
FIG. 1B-2

FIG. 1B

GAATTCCTCCCAACAGAGCCAAGCTCTCCATCTAGTGACAGGGAAGCTAGCAGCAAACC 59 (UPPER: SEQ ID NO.: 2)  
19 (LOWER: SEQ ID NO.: 5)

TTCCCTTCACTACAAAACCTTCATTGCTTGGCCAAAAGAGAGTTAATTC AATGTAGACAT 119  
39 3/20

CTATGTAGGCAATTAAAAACCTATTGATGTATAAAACAGTTTGCATTTCATGGAGGGCAAC 179  
59

TAAATACATTCTAGGACTTTATAAAAGATCACTTTTATTATGCACAGGGTGGAACAAG 239  
79

ATGGATTATCAAGTGTCAAGTCCAATCTATGACATCAATTATTATACATCGGAGCCCTGC 299  
M D Y Q V S S P I Y D I N Y Y T S E P C 99

FIG. 1B-1

CAAAAATCAATGTGAAGCAAAATCGAGCCGCTCCTCGCTCGCTCTACTCAGTGGTG 359  
Q K I N V K Q I A A R L L P P L Y S L V 119  
TTCAATCTTTGGTTTGTGGGCAACATGCTGGTCATCCTCATCCTGATAAACTGCAAAAGG 419  
F I F G F V G N M L V I L I L I N C K R 139  
CTGAAGAGCATGACATCTACCTGCTCAACCTGGCCATCTCTGACCTGTTTTCCTT 479  
L K S M T D I Y L L N L A I S D L F L 159  
CTTACTGTCCCTTCTGGGCTCACTATGCTGCCGCCAGTGGGACTTTGGAATAACAATG 539  
L T V P F W A H Y A A A Q W D F G N T M 179  
TGTCAACTCTTGACAGGGCTCTATTTATAGGCTTCTTCTGGAATCTTCTTCATCATC 599  
C Q L L T G L Y F I G F F S G I F I I 199  
CTCCTGACAATCGATAGGTACCTGGCTGTCGTCCATGCTGTGTTGCTTTAAAGCCAGG 659  
L L T I D R Y L A V V H A V F A L K A R 219  
ACGGTCACCTTTGGGGTGGTGACAAGTGTGATCACTTGGGTGGTGGTGTGTTGCGTCT 719  
T V T F G V V T S V I T W V V A V F A S 239  
CTCCAGGAATCATCTTTACCAGATCTCAAAAGAAGTCTTTCATTACACCTGCAGCTCT 779  
L P G I I F T R S S Q K E G L H Y T C S S 259  
CATTTTCCATACAGTCAGTATCAATTCTGGAAGAAATTTCCAGACATTAAAGATAGTCATC 839  
H F P Y S Q Y Q F F W K N F Q T L K I V I 279

FIG. 1B-2

TTGGGCTGCTCCTGCCGCTGCTTGTCATGCTCTGCTACTCGGGAATCCTAAAACT 899  
 L G L V L P L L V M V I C Y S G I L K T 299  
 CTGCTTCGGTGTGAAATGAGAAGAGGCACAGGCTGTGAGGCTTATCTTCACCATC 959  
 L L R C R N E K K R H R A V R L I F T I 319  
 ATGATTGTTTATTTCTCTTCTGGGCTCCCTACACATTGTCTCTTCTCTGAAACACCTTC 1019  
 M I V Y F L F W A P Y N I V L L L N T F 339  
 CAGGAATTCCTTGGCCTGAATAATTGCAGTAGCTCTAACAGTTGGACCAAGCTATGCAG 1079  
 Q E F F G L N N C S S S N R L D Q A M Q 359  
 GTGACAGAGACTCTTGGGATGACGCACCTGCTGCATCAACCCCATCATCTATGCCCTTGTG 1139  
 V T E T L G M T H C C I N P I I Y A F V 379  
 GGGGAGAAGTTCAGAAACTACCTCTTAGTCTTCTTCCAAAGCACATTGCCAAACGCTTC 1199  
 G E K F R N Y L L V F F Q K H I A K R F 399  
 TGCAAAATGCTGTTCTATTTCCAGCAAGAGGCTCCGAGCGAGCAAGCTCAGTTTACACC 1259  
 C K C C S I F Q Q E A P E R A S S V Y T 419  
 CGATCCACTGGGGAGCAGGAAATATCTGTGGGCTTGTGACACGGACTCAAGTGGGCTGGT 1319  
 R S T G E Q E I S V G L \* 439  
 GACCCAGTCAGAGTTGTGCACATGGCTTAGTTTTTCATACACAGCCCTGGGCTGGGGTNGG 1379  
 459  
 TTGGNNGAGGTCTTTTTTAAAGGAAGTTACTGTATTAGAGGGTCTAAGATTTCATCCATT 1439  
 479  
 TATTGGCATCTGTTTAAAGTAGATTAGATCCGAATTC

FIG. 1B-3

FIG. 1D-1
FIG. 1D-2

FIG. 1D

GAAATCCCCCAACAGAGCCAAGCTCTCCATCTAGTGGACAGGGAAGCTAGCAGCAAAACC	59 (UPPER: SEQ ID NO. 3)
	19 (LOWER: SEQ ID NO. 6)
TTCCCTTCACTACAAAACCTTCATTGCTTGGCCAAAAGAGAGTTAATTCAATGTAGACAT	119
	39
CTATGTAGGCAATTAAAAACCTATTGATGTATAAAACAGTTTGCATTCATGGAGGGCAAC	179
	59
TAAATACATTCTAGGACTTTATAAAAGATCACTTTTATTATGCACAGGGTGAACAAG	239
	79
ATGGATTATCAAGTGTCAGTCCAATCTATGACATCAATTATTATACATCGGAGCCCTGC	299
M D Y Q V S S P I Y D I N Y Y T S E P C	99

FIG. 1D-1

CAAAAATCAATGTGAAGCAAATCGCAGCCCGCCTCCTCGCTCTACTCAGTGGTG 359  
 Q K I N V K Q I A A R L L P P L Y S L V 119  
  
 TTCATCTTTGGTTTGTGGCAACATGCTGGTCATCCTCATCCTGATAAACTGCAAAGG 419  
 F I F G F V G N M L V I L I L I N C K R 139  
  
 CTGAAGAGCATGACTGACATCTACCTGCTCAACCTGGCCATCTCTGACCTGTTTTTCCTT 479  
 L K S M T D I Y L L N L A I S D L F F L 159  
  
 CTTACTGTCCCTTCTGGGCTCACTATGCTGCCGCCAGTGGGACCTTGGAAATACAATG 539  
 L T V P F W A H Y A A A Q W D F G N T M 179  
  
 TGTCAACTCTTGACAGGGCTCTATTTATAGGCTTCTCTCTGGAATCTTCTTCATCATC 599  
 C Q L L T G L Y F I G F F S G I F F I I 199  
  
 CTCCTGACAAATCGATAGGTACCTGGCTGTCGTCCATGCTGTGTTGCTTTAAAGCCAGG 659  
 L L T I D R Y L A V V H A V F A L K A R 219  
  
 ACGGTCACCTTTGGGGTGGTGACAAGTGTGATCATTGGGTGGTGGCTGTGTTGCGTCT 719  
 T V T F G V V T S V I T W V V A V F A S 239  
  
 CTCCTCAGGAATCATCTTTACCAGATCTCAAAAGAAGTCTTTCATTACACCTGCAGCTCT 779  
 L P G I I F T R S Q K E G L H Y T C S S 259  
  
 CATTTCCATACATTAAAGATAGTCATCTTGGGGCTGGTCCCTGCCGCTGTGTCATGGT 839  
 H F P Y I K D S H L G A G P A A A C H G 279

FIG. 1D-2

CATCTGCTACTCGGGAATCCTAAAACTCTGCTTCGGTGTGAAATGAGAAGAAGAGGCA 899  
 H L L L G N P K N S A S V S K \* 299  
 CAGGGCTGTGAGGCTTATCTTCACCATCATGATGTTGTTTATTTCTCTTCCTGCGCTCCCTA 959  
 319  
 CAACATTGTCTCTCTGAAACACCTTCCAGGAATCTTTGGCCCTGAATAATTGCAGTAG 1019  
 339  
 CTCTAACAGGTTGGACCAAGCTATGCAGGTGACAGAGACTCTTTGGGATGACGCACCTGCTG 1079  
 359  
 CATCAACCCCATCATCTATGCCTTTGTCTGGGGAGAAGTTCAGAAACTACCTCTTAGTCTT 1139  
 379  
 CTTCCAAAGCACATTGCCAAACGGCTTCTGCAAAATGCTGTCTTATTTTCCAGCAAGAGGC 1199  
 399  
 TCCCGAGCGAGCAAGCTCAGTTTACACCCGATCCACTGGGGAGCAGGAAATATCTGTGGG 1259  
 419  
 CTTGTGACACGGACTCAAGTGGGCTGGTGACCCAGTCAGAGTTGTGCACATGGCTTAGTT 1319  
 439  
 TTCATACACAGCCCTGGGCTGGGGTNGGTTGNNAGGCTCTTTTAAAGGAAGTTACT 1379  
 459  
 GTTATAGAGGGTCTAAGATTATCCATTATTTGGCATCTGTTTAAAGTAGATTAGATCC 1439  
 479

GAATTC



FIG. 2A
FIG. 2B

FIG. 2

CCR5	1 MDYQVSSPIYDINYYTSEPCQKINVKQIAARLLPPLYSLVFIFGVGNMLVILILINCKRLKSMTDIYLLNLAISDIFFLIT	83
hCC-R2b	6 MLSTSRSRFIRNTNESGEEVTFDDYDYGAPCHKFVKQIGAGLLPPLYSLVFIFGVGNMLVILILINCKRLKCLTDIYLLNLAISDLFLIT	95
hCC-R3	MTTSLDTVETFGTTSYYDDVGLLCEKADTRALMAQFVPPLYSLVFTVGLIGNVVMILIKYPRIRIMTNIYLLNLAISDILFLVT	87
hCC-R1	METPNTTETYDTTTEFDYGDATPCQKINERAFGAQLLPPLYSLVFVIGLVGNILVILVQVKRLKNMTSIYLLNLAISDILFLFT	87
hCC-R4	MNPTDIADTTLDESIYSNYYLYESIPKPTKEGKAFGELFLPPLYSLVFVEGLLGNVSVVLVLFKVKRIRSMTDVYLLNLAISDILFVFS	92

I

III

IV

CCR5	VPFWAHYAARQWDFGNIMCQLLTGLYFIFGFFSGIFFIILLTDRYLAIVHAVFALKARTVTFGVVTSVITWVAVFASLPGIIFTRSQKEGLH	177
hCC-R2b	LPLWAHSAANENVFGNAMCKLFTGLYHIGYFGGIFFIILLTDRYLAIVHAVFALKARTVTFGVVTSVITWVAVFASVPGIIFTRKQKEDSV	189
hCC-R3	LPFWTHYVRGHNVFCHGMCNLLISGFYHTGLYSEIFFIILLTDRYLAIVHAVFAIRPARTVTFGVITSIVTWGLAVTAAALPEFIFYETEELFEE	182
hCC-R1	LPFWIDYKDKDDNVFGDAMCKILISGFYHTGLYSEIFFIILLTDRYLAIVHAVFAIRPARTVTFGVITSIIIMALAILASMPGLYFSKTQWEFTH	182
hCC-R4	LPFWGYYAADQWVFGLGICKMTISWMLVGFYSGIFFVMLMSIDRYLAIVHAVFSRARTITYGVIITSLATWSVAVFASLPGIFSTCYTERNH	186

FIG. 2A

## A

## VII

SSSNRLDQAMQVTEITLGMTHCCINPIIYAFVGEKFRNYYLLVFFQKHIARLFCCKCCSIFQQEAPERASSVYTRSTGEQEISVGL 352  
ESTSQLDAQITQVTEITLGMTHCCINPIIYAFVGEKFRNYYLLVFFRKHITKRFCKQCQPVFYRETVGDVTSNIPSTGEQEVMSAGL 360  
ERSKHLDLVMLVTEVIAYSHCCMNPVIYAFVGEKFRKYLRRHFFHRLLMH.LGRYIPFLPSEKLERITSSV.SPSTAEPELSIVF 355  
EQSRHLDIAVQVTEVIAYTHCCVNPVIYAFVGERPKYLRLQLFHRRAVH.LVKNWLPFLSVDRLERVSS.T.SPSTGEHELSAGF 355  
TFERYLDVAIQATETLAFVHCCLNPIIYFELGEKFRKYLRLQLFVLCCTCGRGLFVICQYCGLLQIYSADTPSSSYTQSTMDHDLHDAL 360

FIG. 2B

11/20

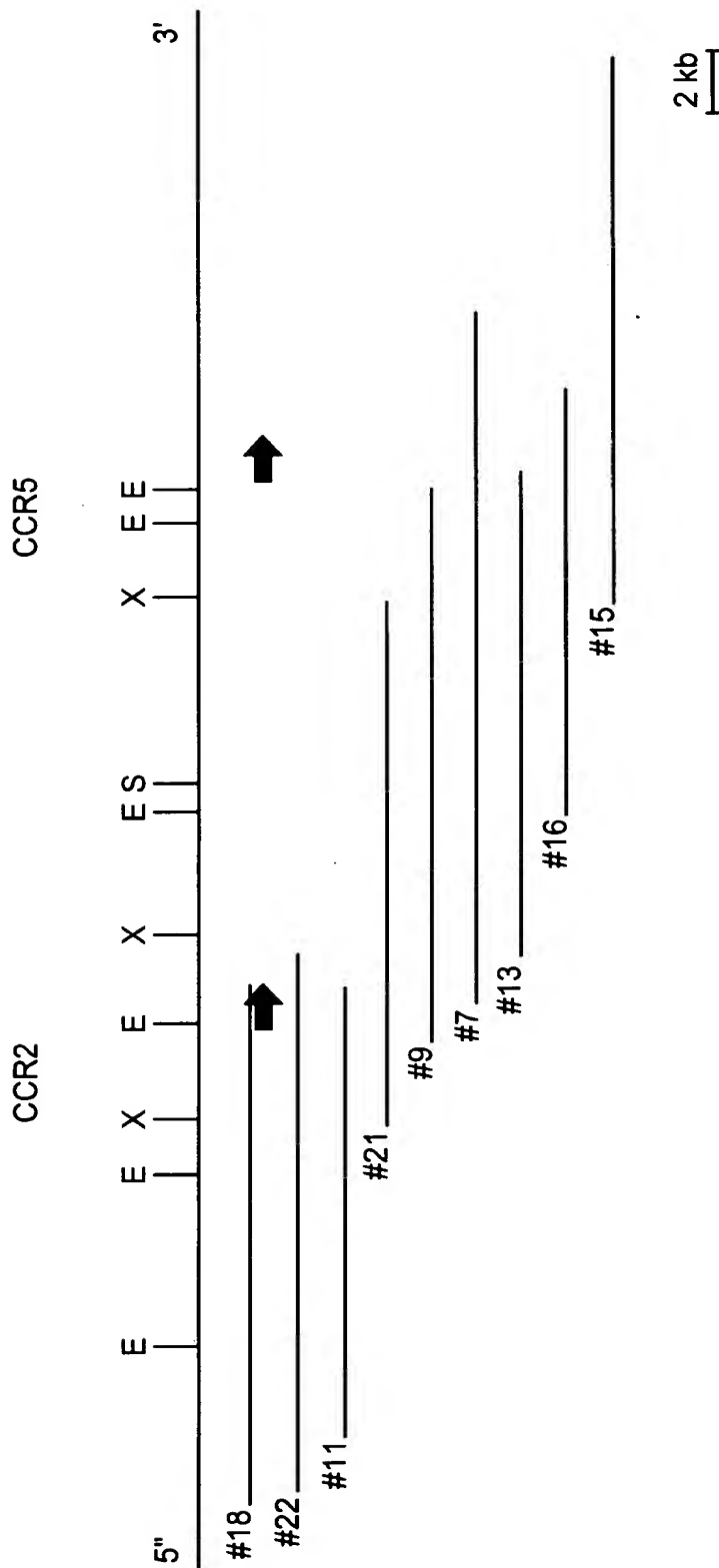


FIG. 3

12/20

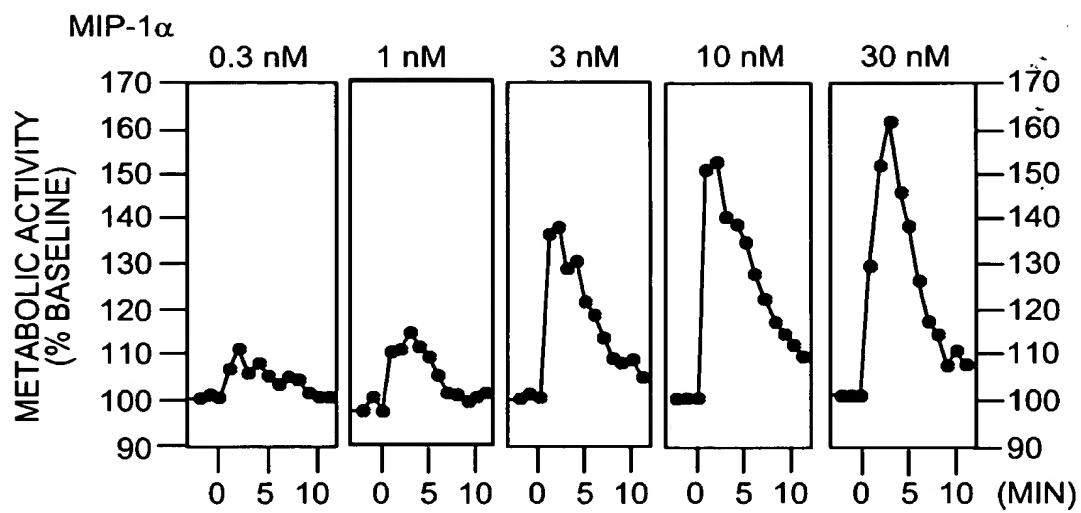


FIG. 4A

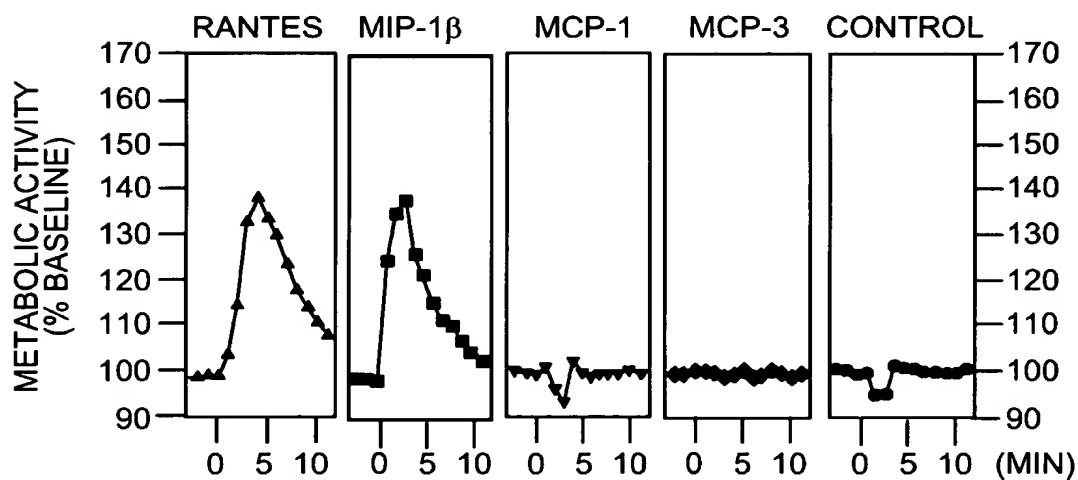


FIG. 4B

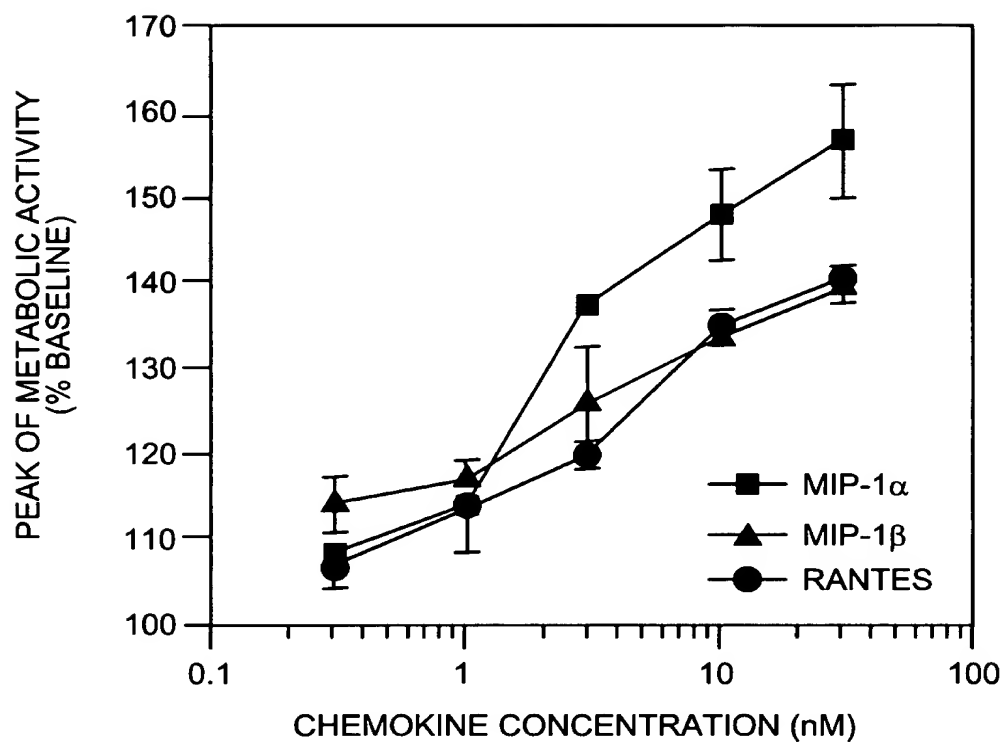


FIG. 4C

14/20

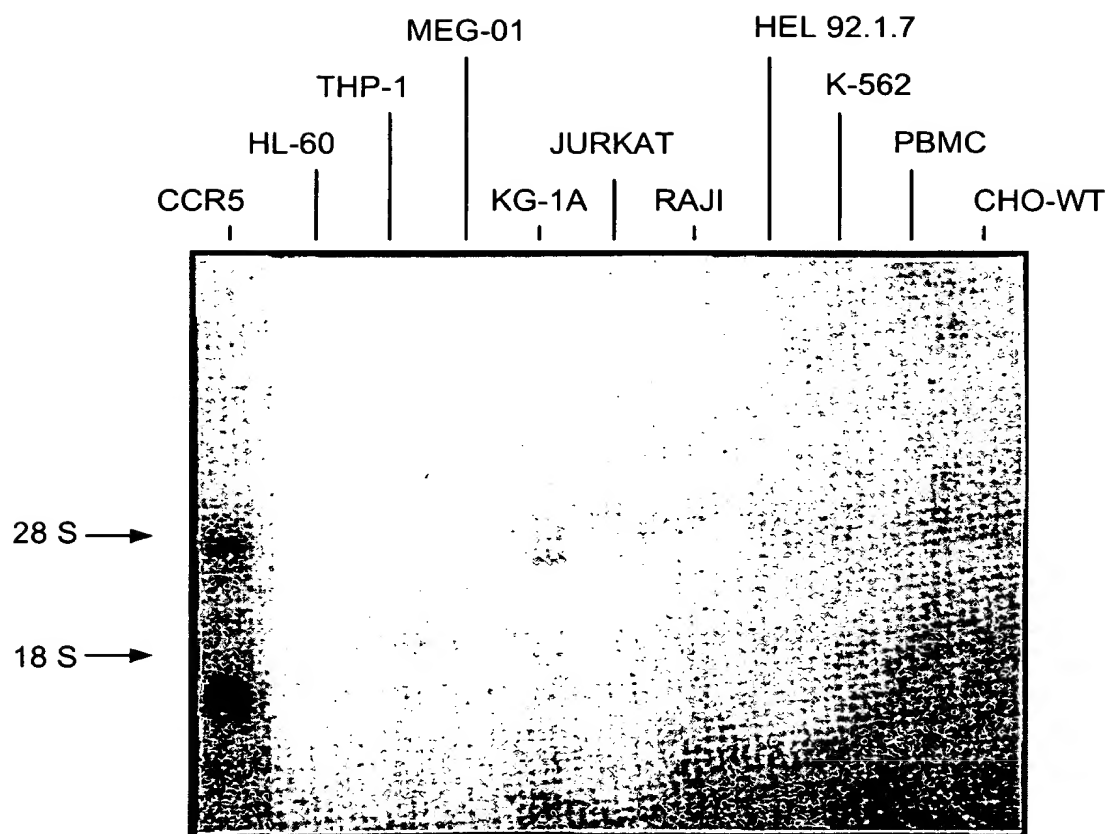


FIG. 5

FIG. 6A
FIG. 6B

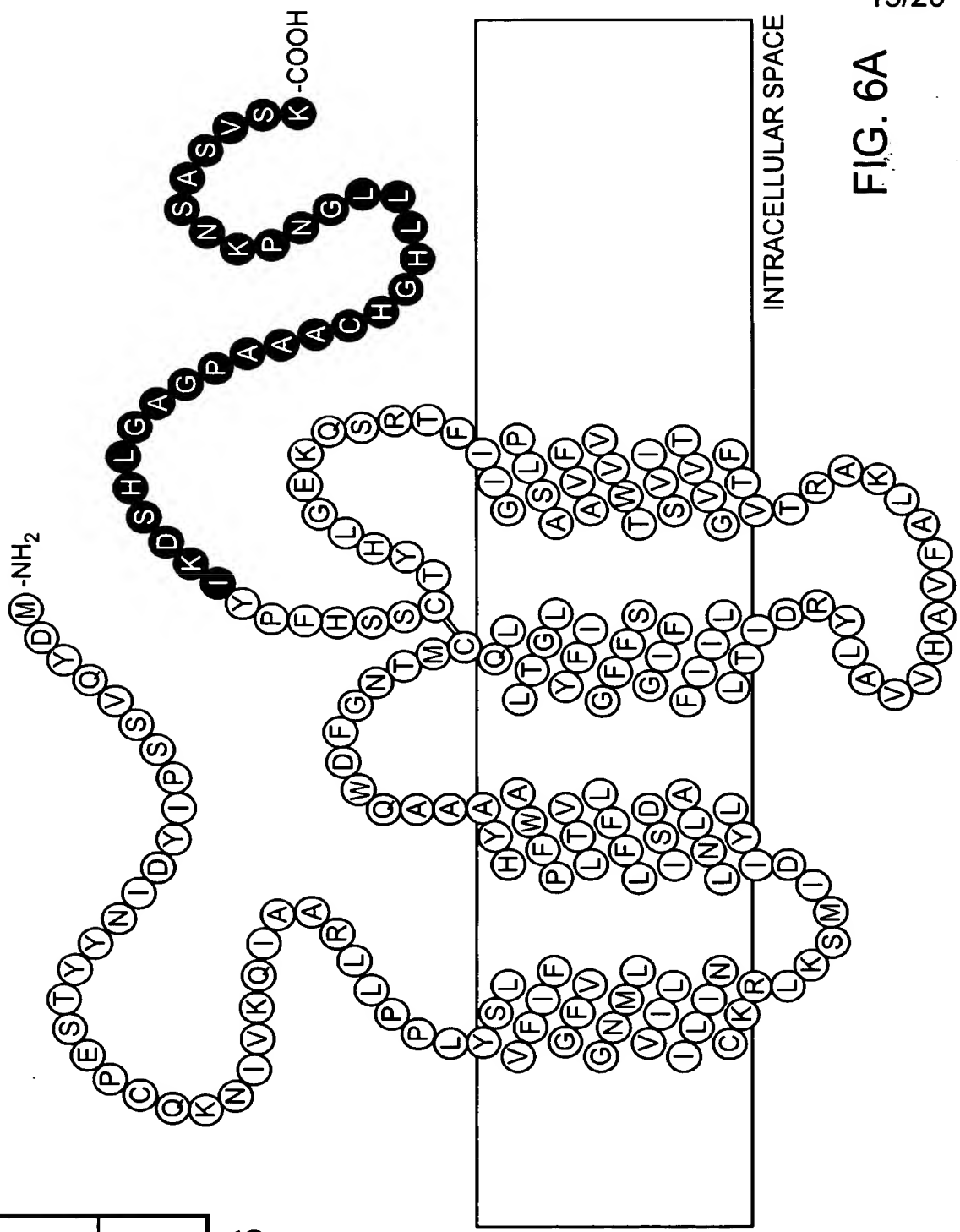


FIG. 6

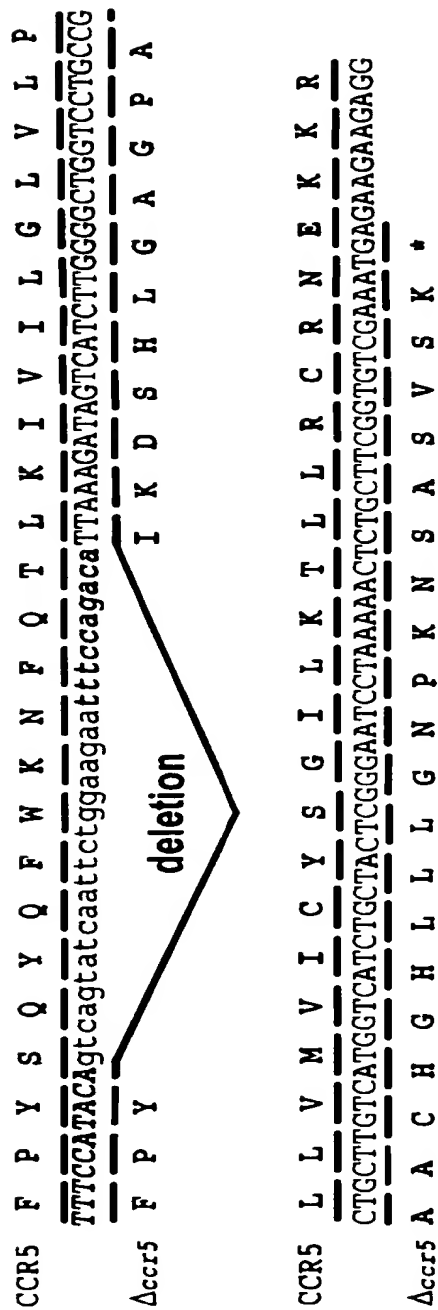


FIG. 6B



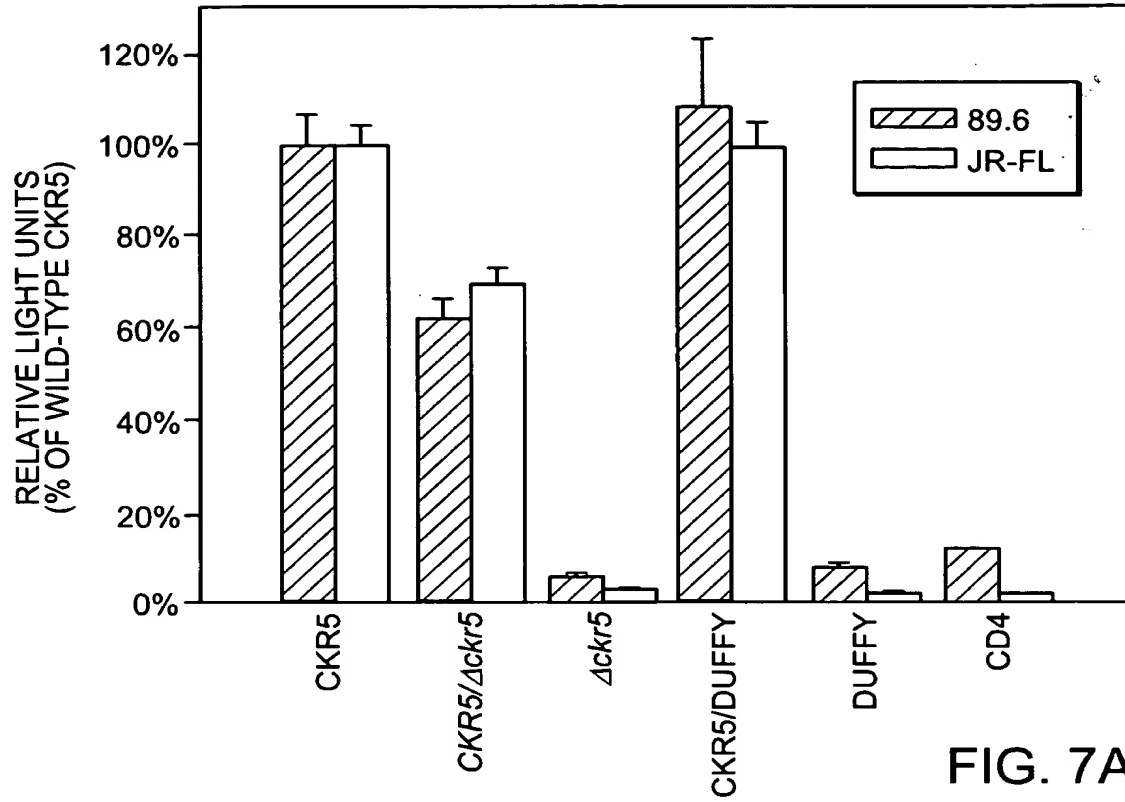


FIG. 7A

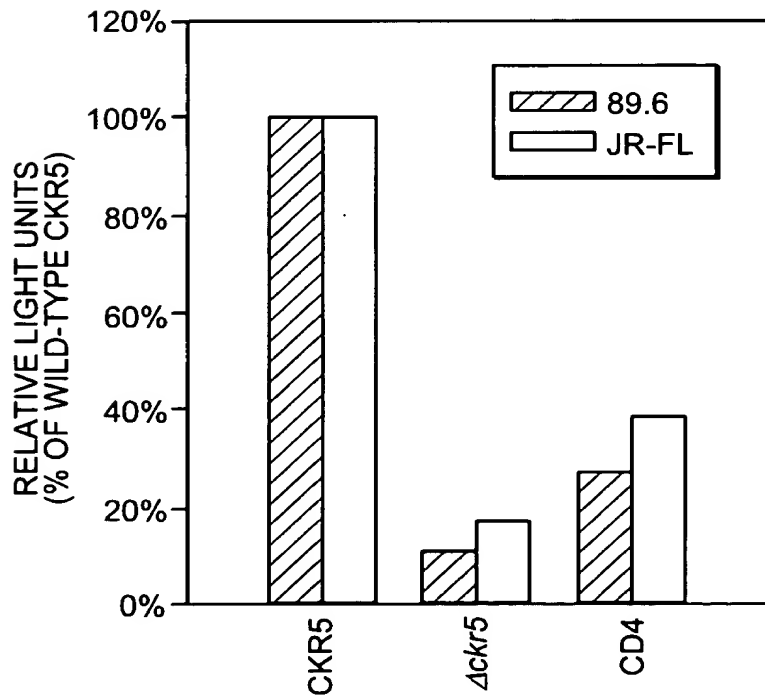


FIG. 7B

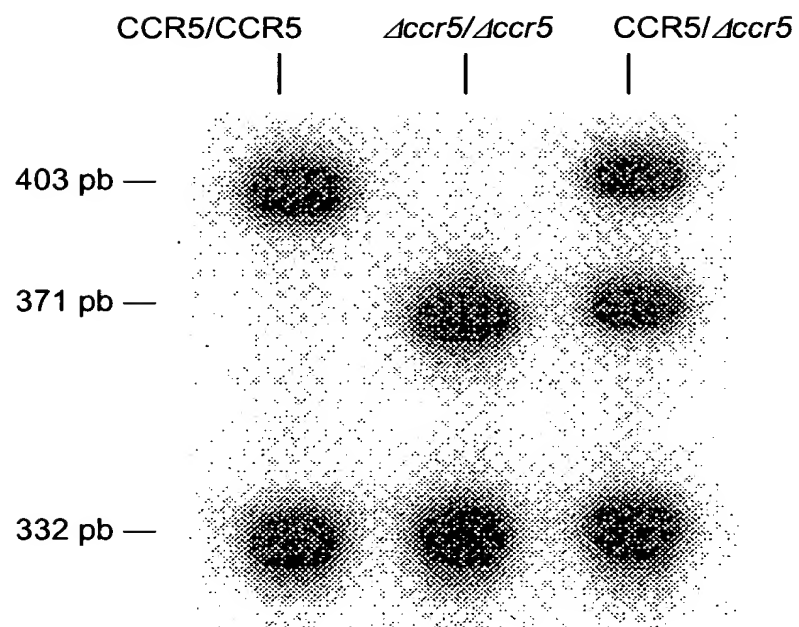
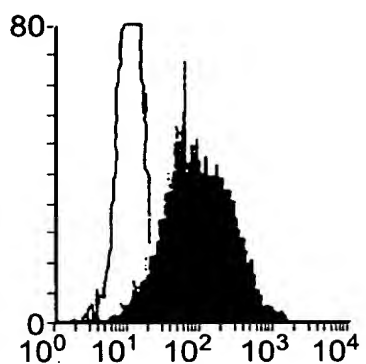
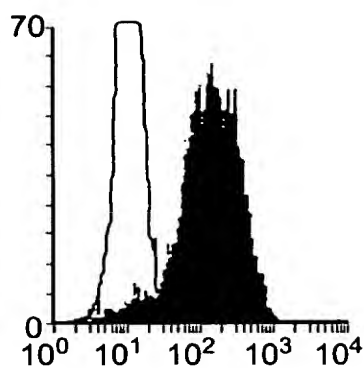


FIG. 8



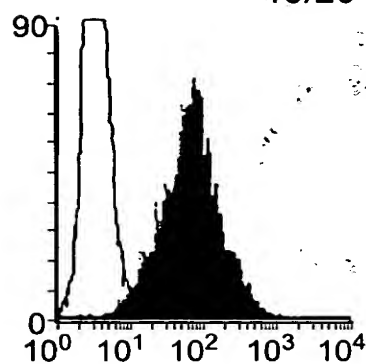
A0

FIG. 9A



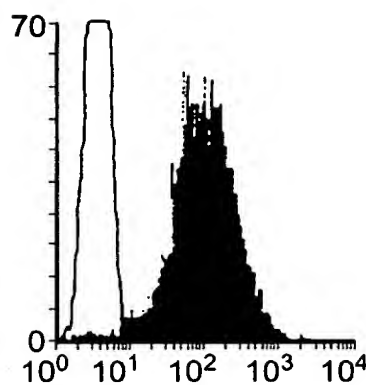
A1

FIG. 9B



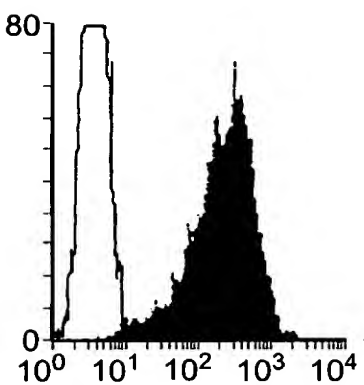
A2

FIG. 9C



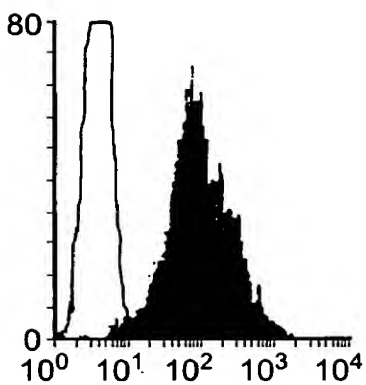
A5

FIG. 9D



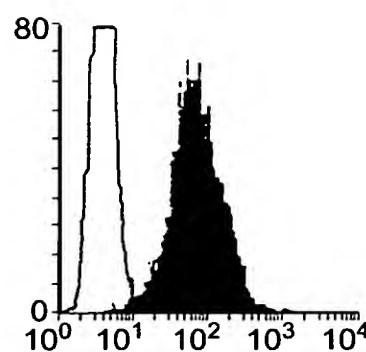
A4

FIG. 9E



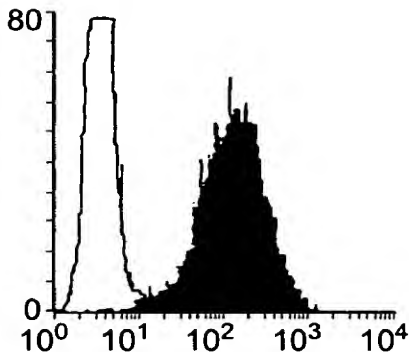
B0

FIG. 9F



B1

FIG. 9G



B3

FIG. 9H

20/20

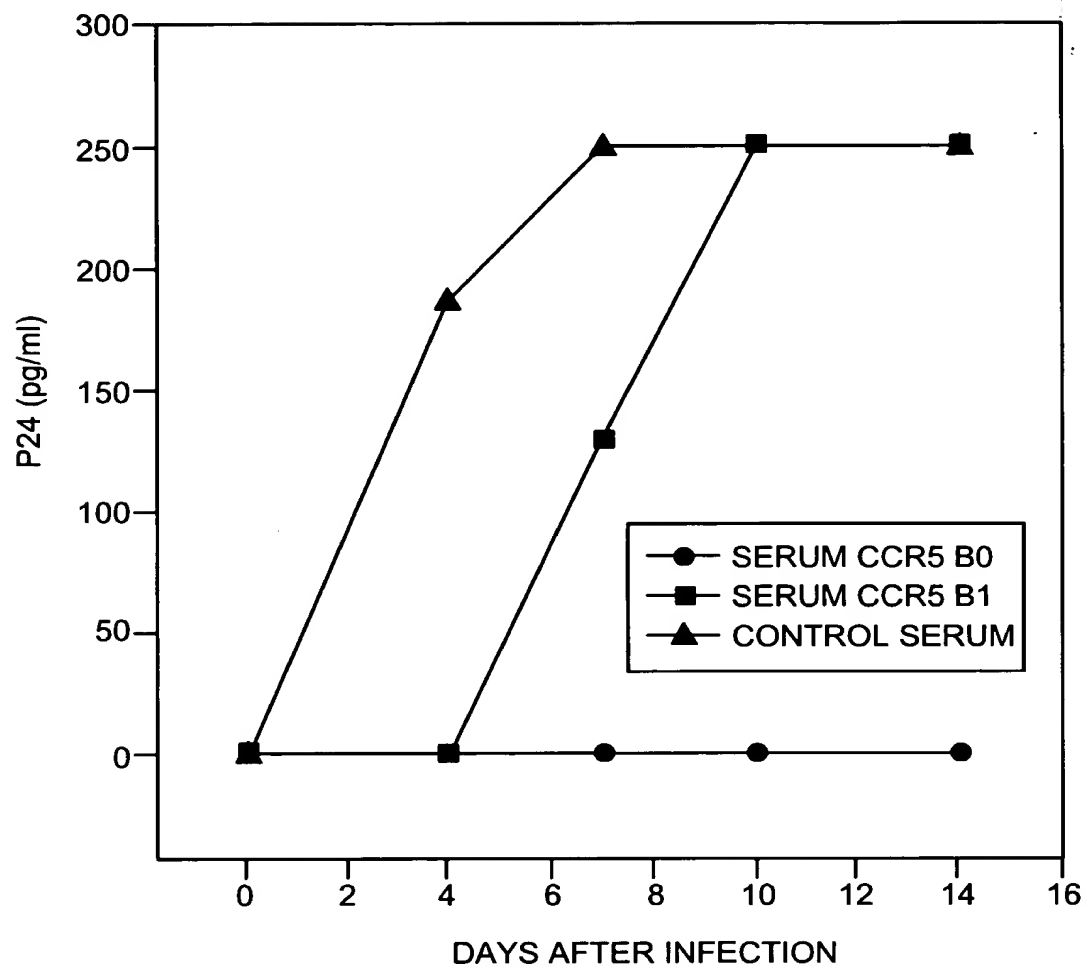


FIG. 10